

REMARKS

Claims 24 and 52 - 96 are currently pending in the application. Applicants have amended claims 24, 52, 63, 68 and 88 clarify the claimed limitations as suggested by the Examiner. Claim 82 was amended to remove a duplicate word.

In the office action, claims 24, 52-96 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. In making this rejection the Examiner alleged that the claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, the Examiner alleged that the various limitations of the touch layer “having a conductivity selected to create an image of a conductive object that is larger than an area of contact of said conductive object” were not adequately supported in the specification. Specifically, the Examiner concluded that the specification does not enable a person of ordinary skill in the art to make and use the claimed invention without resorting to “undue experimentation”.

Applicants respectfully disagree, and submit that the claims meet the requirements of 35 U.S.C. 112, first paragraph. First, applicants note that the test of enablement is not whether any experimentation is necessary, but whether, if experimentation is necessary, it is “undue”. See *In re Angstadt*, 537 F.2d 498, 504, 190 USPQ 214, 219 (CCPA 1976), and MPEP 2164.01. Furthermore, the quantity of experimentation needed is only one factor involved in determining whether “undue experimentation” is required to make and use the invention. Thus, an extended period of experimentation may not be undue if the skilled artisan is given sufficient direction or guidance. See *In re Colianni*, 561 F.2d 220, 224, 195 USPQ 150, 153 (CCPA 1977). Stated another way, a considerable amount of experimentation is permissible, if it is merely routine, or if the specification in question provides a reasonable amount of guidance with respect to the direction in which the experimentation should proceed. See *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988), and MPEP 2164.06.

In the current case, applicants submit that the specification provides sufficient guidance to make and use the invention, such that “undue experimentation” would not be required by one

of ordinary skill in art to make and use the invention. Specifically, regarding the conductivity of the top layer the specification teaches that:

- The conductive touch layer has a moderate conductivity that spreads out the ground image of the tip of the stylus (page 8, lines 25-31).
- A suitable material for this purpose is a conductive carbon powder in a plastic carrier material such as epoxy (page 9, lines 1-13).
- The moderate conductivity of the material causes the effect to dissipate with distance from the point of contact with the stylus (page 9, lines 8-13).
- By controlling the conductivity of layer 501, the image of the stylus tip can be adjusted to provide a sufficient signal on an appropriate number of electrodes (page 9, lines 14-17). This effect is also illustrated in FIG. 6.
- If the conductivity is too large, the image will be very large, possibly even covering the entire surface of the pad (page 9, lines 19-23). This effect is also illustrated in FIG. 7.
- If the conductivity is too small, the image will not be much larger than the tip of the stylus (page 9, lines 30-33). This effect is also illustrated in FIG. 8.
- The specification teaches that for one embodiment, the conductivity of the surface can be chosen for best operation such that the image of the stylus is about the same size as a finger would be on a normal capacitive sensor (see page 10, lines 3-6, and the similarity between graph 205 of FIG. 2 and graph 506 of FIG. 6). The specification also gives as an example the increasing of area by a factor of four (see page 12, lines 4-12).

Furthermore, we note that the use of the term “moderate” clearly defines an intermediate amount of conductivity. For example, “moderate” is defined as “tending toward the mean or average amount or dimension” (see Merriam-Webster’s Collegiate Dictionary, 11th Edition). Thus, a material having “moderate conductivity” would not have the full conductivity found in a pure metallic conductor, or the absence of conductivity found in an insulator material.

Instead, a moderate conductivity describes the intermediate level of conductivity, such as that found in a the described carbon impregnated epoxy.

Finally, we also note that someone with ordinary skill in capacitive sensor design would have a professional level of training in electrical engineering and physics, and would thus have a strong understanding of underlying material properties, including the conductivity of materials such as carbon impregnated epoxy.

In summary, the specification thus clearly describes a suitable material for use in the touch layer (*i.e.*, carbon powder in epoxy), describes a suitable conductivity in general (*i.e.*, moderate conductivity), and gives detailed guidance is determining what the effect of a suitable conductivity for a particular application would be (*i.e.*, selected to increase an image of a stylus by a factor of 4). One of ordinary skill in the art is thus taught to start with carbon powder impregnated epoxy, which inherently has a moderate conductivity, and adjusts the level of conductivity until the desired result is achieved for the particular application. While determining the precise preferred conductivity for a particular application would clearly involve some experimentation, such experimentation would clearly be within the highly technical abilities of one of ordinary skill in the relevant art. Furthermore, given the explicit guidance in selecting a suitable material and conductivity, such experimentation would not be “undue”. As stated by the Federal Circuit, “[w]here the specification provides ‘guidance in selecting the operating parameters that would yield the claimed result,’ it is fair to conclude that the experimentation required to make a particular embodiment is not ‘undue’” *PPG Indus v. Guardian Indus Corp.*, 75 F.3d. 1558, 37 USPQ2d 1618 at 1624 (Fed. Cir. 1996), quoting *In re Colianni*, 561 F.2d 220, 224, 195 USPQ 150, 153 (C.C.P.A. 1977) (Miller, J. concurring)

Thus, applicants submit that the specification enables one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention, and thus meets the requirements 35 U.S.C. 112, first paragraph. Thus, applicants submit that all pending claims are now allowable.

CONCLUSION

If any additional fees, including extension of time fees or additional claims fees, are due as a result of this response, please charge Ingrassia Fisher & Lorenz Deposit Account No. 50-2091. This authorization is intended to act as a constructive petition for an extension of time, should an extension of time be needed as a result of this response. The Examiner is invited to telephone the undersigned if this would in any way advance the prosecution of this case.

Respectfully submitted,

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